CLAIM AMENDMENTS

1. **(Currently Amended)** A method for recognizing a sensor type, the method performed by a program **of computer instructions** embodied in ~~**tangible**~~ **non-transitory** computer-readable media and comprising the following steps:

checking a first condition that will have been met if a measuring signal of a sensor exceeds a first threshold,

checking a second condition if the first condition has been met, with the second condition having been met if a gradient of the measuring signal is greater in amount than a predefined second threshold,

determining whether **or not** the sensor is ~~**(a)**~~ a signal-value-range multiplex output type sensor**, wherein a signal-value-range multiplex output type sensor comprises a type of sensor that measures at least two different parameters having different ranges of signal values and outputs the measurements of the at least two different parameters in a multiplexed manner** ~~**having at least two different outputs that are multiplexed or (b) not a signal-value-range multiplex output type sensor having at least two different outputs that are multiplexed**~~, including:

recognizing the sensor as a signal-value-range multiplex output type sensor if the first and second conditions have been met, and

recognizing the sensor as not a signal-value-range multiplex output type sensor if at least one of the **first and second** conditions has not been met.

2. (Previously Presented) The method according to claim 1, wherein the first and second conditions are in each case checked close in time to a start of operation of the sensor.

3. (Previously Presented) The method according to claim 1, wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the first and second conditions have been met a predefined number of times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal will be recognized.

4. **(Currently Amended)** The method according to claim 1, wherein ~~**the following steps are carried out**~~ in case of a recognized sensor having a signal-value-range multiplex output:

~~**the first and, dependent thereon, the second conditions are checked,**~~

a measurement value of the measuring signal, which value was registered a predefinable period of time before the first and second condition were met, will be assigned to either a **fuel temperature or a fuel quantity** ~~**first or a second measured variable**~~ depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

5. (Previously Presented) The method according to claim 4, wherein a fault will be recognized if the first and second conditions are not met during a predefinable period of time.

6. **(Currently Amended)** A method for determining whether or not a sensor is a signal-value-range multiplex output type sensor**, defined as a sensor that measures at least two different parameters having different ranges of signal values and outputs the measurements of the at least two different parameters in a multiplexed manner** ~~**having at least two different outputs that are multiplexed**~~, the method performed by a program **of computer instructions** embodied in ~~**tangible**~~ **non-transitory** computer-readable media and comprising:

determining whether a measuring signal of a sensor exceeds a first threshold and if so, determining whether a gradient of the measuring signal is greater in amount than a predefined second threshold, and if so, identifying the sensor as a signal-value-range multiplex output type sensor,

and if either step of determining fails, then identifying the sensor as not being a signal-value-range multiplex output type sensor.

7. (Previously Presented) The method according to claim 6, wherein the steps of determining are in each case checked close in time to a start of operation of the sensor.

8. (Previously Presented) The method according to claim 6, wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the steps of determining have been met a predefined number of times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal will be recognized.

9. **(Currently Amended)** The method according to claim 6, wherein the following steps are carried out in the case of a recognized sensor having a signal-value-range multiplex output:

~~**repeating the steps of determining,**~~

assigning a measurement value of the measuring signal, which value was registered a predefinable period of time before the steps of determining were met, to either a **fuel temperature or a fuel quantity** ~~**first or a second measured variable**~~ depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

10. (Previously Presented) The method according to claim 9, wherein a fault will be recognized if the steps of determining are not met during a predefinable period of time.

11. **(Currently Amended)** An arrangement for recognizing whether or not a sensor is a signal-value-range multiplex output type sensor**, defined as a sensor that measures at least two different parameters having different ranges of signal values and outputs the measurements of the at least two different parameters in a multiplexed man** ~~**having at least two different outputs that are multiplexed**~~, **the arrangement** comprising:

means for determining whether a measuring signal of a sensor exceeds a first threshold and

means for determining whether a gradient of the measuring signal is greater in amount than a predefined second threshold,

wherein the sensor is recognized as a signal-value-range multiplex output type sensor if both determinations are met, and if either determination fails, then the sensor is not recognized as a signal-value-range multiplex output type sensor.

12. (Previously Presented) The arrangement according to claim 11, wherein the determinations are performed close in time to a start of operation of the sensor.

13. (Previously Presented) The arrangement according to claim 11,

wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the determinations have been met a predefined number of times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal will be recognized.

14. **(Currently Amended)** The arrangement according to claim 11, wherein in the case of a recognized sensor having the signal-value-range multiplex output a measurement value of the measuring signal, which value was registered a predefinable period of time before the determinations were met, is assigned to either a **fuel temperature or a fuel quantity** ~~**first or a second measured variable**~~ depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

15. (Previously Presented) The arrangement according to claim 14, wherein a fault will be recognized if the determinations are not met during a predefinable period of time.